A new plant joins the Hudson River flora

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On September 2, 1929, Mr. William H. Barker, of the State Education Department, whose home is along side of the Hudson River at Waterford above Albany, brought to me specimens of a plant, which at first, because I had never seen the species before, looked strange. Examination of the flowers and fruit and reference to the herbarium soon disclosed the fact that it was Nymphoides nymphaeoides (L.) Britton¹ (N. peltatum S. P. Gmel Britten & Rendle). Mr. Barker told me that he had found the plants, quite a colony of them in fact, growing in the shallow water of the Hudson river near his home. The accompanying photography was made from these specimens.

Already two brilliantly flowered plants, unknown along the Hudson river half a century ago, have taken almost complete possession of the marshy environs of the river banks and backwaters from above Troy to New York. They are the Great Hairy Willow-herb (*Epilobium hirsutum* L.) an ally of our common upland fireweed, and the Purple Loosestrife (*Lythrum salicaria* L.) The usurpation of a dominant place in marshes and stream borders by these two species, now well extended across the state, outside of the higher mountains has apparently brought no protest.

In 1932, the Floating Heart, the common name ascribed to *Nymphoides nymphaeoides*, was collected by Muenscher and Maguire below Schuylerville, and is reported from there by Muenscher.² On August 26, 1936, I motored over a dirt road along the east side of the Hudson river (in Washington county) between Stillwater and Schuylerville. In quiet backwaters of the river I was astonished to see wide stretching colonies of a plant so thickly covered with yellow flowers as to appear almost solidly yellow from the highway and forming a brilliant contrast against the varying shades of green of the paralleling zones of vegetation and adjacent woodlands. My first thought was

¹ Britton & Brown. Illustrated Flora 3: 19. 1913.

² Muenscher, W. C. Aquatic Vegetation of the Mohawk Watershed. In A Biological Survey of the Mohawk-Hudson Watershed (Biological Survey No. IX). Supplemental to the 24th Annual Report of the New York State Conservavation Commission. p. 248. 1935.

"Bidens Beckii" but closer examination revealed that the former scattered growths of Floating Heart were now extensive, solidly massed colonies, almost comparable in density to the growth of Trapa natans in the Mohawk river, described by Muenscher.³ Nearly every quiet bay and backwater between Troy and Schuylerville is now occupied by this species, as well as occasional shallow bars in the main stream itself. Only when



Photo by E. J. Stein

The Floating Heart. Nymphoides nymphaeoides. From the Hudson River at Waterford, New York, collected by William H. Barker.

it is in full bloom in August can its relative abundance and beauty be appreciated.

Its origin here is unknown, but it is probably an escape from some artificial or natural water garden or pool, in which situations it is not infrequently seen in cultivation.

The three species mentioned in this paper have profoundly altered the appearance of the upper stretches of the Hudson river vegetation, just as at a much earlier time, the White Daisy, the Black-eyed Susan, Buttercup, Queen Anne's lace and other so-called weeds had altered the flora of our upland fields and meadows. The Floating Heart was collected at Nutten

³ Muenscher, W. C., l.c. 230, 234-242. f. 1-5. 1935.

Hook, Columbia county, on September 13, 1936, by Dr. Rogers McVaugh, indicating that the plant is possibly on its way down the river. In this respect it differs from *Trapa natans*, unbelievably common in the Crescent section of the Mohawk river above Cohoes, but which has as yet not advanced down the river.

What will be the next recruit to the flora of the Hudson river? One good guess is *Butomus umbellatus* L., which has reached the southern end of Lake Champlain, where collected by Knowlton,⁴ by Muenscher,⁵ and by Frank Dobbin (August 4, 1930).

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⁴ C. H. Knowlton. Rhodora 32: 18. 1930.

⁵ Muenscher, W. C., Rhodora 32: 19, 1930.